

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date:

Region: Mooresville Regional Office
County: Cabarrus
NC Facility ID: 1300051
Inspector's Name: Melinda Wolanin
Date of Last Inspection: 01/15/2016
Compliance Code: 3 / Compliance - inspection

Facility Data Applicant (Facility's Name): S&D Coffee, Inc. Facility Address: S&D Coffee, Inc. 300 Concord Parkway South Concord, NC 28027 SIC: 2095 / Roasted Coffee NAICS: 31192 / Coffee and Tea Manufacturing Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V				Permit Applicability (this application only) SIP: N/A NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: N/A					
Contact Data				Application Data					
Facility Contact John Weibel Environmental Systems Program Manager (704) 782-3121 300 Concord Parkway South Concord, NC 28027	Authorized Contact Scott Seebold VP of Operations (704) 782-3121 300 Concord Parkway South Concord, NC 28027	Technical Contact John Weibel Environmental Systems Program Manager (704) 782-3121 300 Concord Parkway South Concord, NC 28027	Application Number: 1300051.15A Date Received: 02/17/2015 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 05029/T15 Existing Permit Issue Date: 10/01/2014 Existing Permit Expiration Date: 12/31/2015						
Total Actual emissions in TONS/YEAR:									
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP		
2014	0.0600	9.63	83.42	5.65	12.43	21.74	13.03 [Acetaldehyde]		
2013	0.0400	6.32	78.92	3.09	11.20	20.58	12.41 [Acetaldehyde]		
2012	0.0400	6.05	81.62	3.17	10.79	21.37	13.07 [Acetaldehyde]		
2011	0.0300	5.17	68.35	2.65	9.02	17.90	10.95 [Acetaldehyde]		
2010	0.0300	4.91	68.47	2.63	8.95	17.99	11.16 [Acetaldehyde]		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> Review Engineer: Richard Simpson Review Engineer's Signature: </td> <td style="width: 50%; vertical-align: top;"> Comments / Recommendations: Issue: 05029/T16 Permit Issue Date: March XX, 2016 Permit Expiration Date: February XX, 2021 </td> </tr> </table>								Review Engineer: Richard Simpson Review Engineer's Signature:	Comments / Recommendations: Issue: 05029/T16 Permit Issue Date: March XX, 2016 Permit Expiration Date: February XX, 2021
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I. Purpose of Application

S&D Coffee, Inc. currently holds Title V Permit No. 05029T15 with an expiration date of December 31, 2015 for producing coffee and products located in Concord, Cabarrus County, North Carolina. The primary purpose of this application is for permit renewal without a modification. The renewal application was received on February 17, 2015, which was at least nine months prior to the expiration date, as required by General Permit Condition 3.K. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

II. Facility Description

S&D processes green coffee beans into roasted coffee products, including whole and ground beans. The coffee roasting process consists of cleaning, roasting, cooling, and packaging operations. The facility also mixes and packages tea leaves. Existing operations include six natural gas-fired coffee bean roasters each controlled by either a catalytic or thermal oxidizer, six cooling and de-stoning systems controlled by simple cyclones, and green bean and tea handling operations controlled by bagfilters. The facility operates the roasting process twenty-four hours per day, five to six days a week, and the packaging department operates sixteen to twenty hours per day, six days per week, fifty-two weeks per year.

III. History/Background/Application Chronology

February 17, 2015 – Permit application **1300051.15A** was received for a Title V minor modification.

May 18-20, 2015 – Received email comments from facility representative John Weibel concerning updated emission factors for the tea leaf operations.

December 30, 2015 through February 8, 2016 – Received comments and information through emails and telephone calls concerning the Title V renewal from facility representative John Weibel.

February 11, 2016 – The facility, Mooresville Regional Office, and Stationary Compliance Section were requested by the Permitting Section to comment on the updated renewal. Comments were received and included in the permit.

February XX, 2016 – DRAFT permit sent to public notice and EPA for review prior to issuance. The 30-day public comment period ended **March XX, 2016** with the receipt of no comments. The 45-day EPA review period ended **April XX, 2016** with the receipt of no comments.

IV. Permit Modifications/Changes and TVEE Discussion

The following table lists all modifications associated with this permit action:

Page(s)	Section	Description of Change(s)
Cover and throughout	Throughout	Updated all tables, dates, and permit revision numbers.
Throughout	Throughout	Corrected the regulatory reference from 02D and 02Q to 02D and 02Q.
Attachment	Insignificant Activities List	Removed sample coffee bean roaster associated with research and development operations (IS-SR1).
Attachment	Insignificant Activities List	Added Probat Probatino Tabletop natural gas-fired (0.0185 lb/MMBtu) roaster associated with research and development operations (IS-SR2).
5	Section 2.1.A.	Changed table of Limits/Standards from “odorous emissions must be controlled” to “See Section 2.2.D.”
6	Section 2.1.A.4.	Deleted section since rule is already included as facility-wide affected sources in Section 2.2.D.
4, 9-11	Section 2.1.C.3.	Included CAM requirements for ES-TMP due to updated emission factor.
21	Section 2.2.D.	Included 15A NCAC 02D .1806 Control and Prohibition of Odorous Emissions as facility wide affected sources.
38	General Conditions	Updated to latest version of DAQ shell version 4.0 12/17/15.

There were changes made to the Title V Equipment Editor (TVEE) under this permit renewal.

V. Regulatory Review/Equipment Changes

The facility is currently subject to the following regulations:

- 15A NCAC 02D .0515, “Particulates from Miscellaneous Industrial Processes”
- 15A NCAC 02D .0516, “Sulfur Dioxide Emissions from Combustion Sources”
- 15A NCAC 02D .0521, “Control of Visible Emissions”
- 15A NCAC 02D .0524, “New Source Performance Standards (40 CFR Part 60 Subpart JJJJ)”
- 15A NCAC 02D .0614, “Compliance Assurance Monitoring”
- 15A NCAC 02D .0958, “Work Practices for Sources of Volatile Organic Compounds”
- 15A NCAC 02D .1100, “Control of Toxic Air Pollutants”
- 15A NCAC 02D .1806, “Control and Prohibition of Odorous Emissions”
- 15A NCAC 02D .1111, “Maximum Achievable Control Technology (40 CFR Part 63 Subpart DDDDD, 40 CFR Part 63 Subpart ZZZZ)”
- 15A NCAC 02Q .0317, “Avoidance Conditions (for 15A NCAC 02D .0902, RACT Avoidance)”
- 15A NCAC 02Q .0711, “Emission Rates Requiring a Permit”

An extensive review for each applicable regulation is not included in this document, as the facility’s status with respect to these regulations has not changed. For a discussion of MACT, CAM, and PSD requirements, see Section 6. The permit will be updated to reflect the most current stipulations for all applicable regulations.

VI. NSPS, NESHAP/MACT, PSD, 112(r), CAM, and RACT:

New Source Performance Standards (NSPS)

The only NSPS source at S&D is the 130 kW (175 hp) natural-gas fired emergency generator (ID No. ES-EG). As per 40 CFR 60.4230(a)(4)(iv), emergency engines with a maximum engine power greater than 19 KW (25 HP) are subject to this rule. The engine must meet the emission standards in Table 1 of the NSPS Subpart JJJJ, as shown in the following table.

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC	NO _x	CO	VOC
Emergency	HP≥130	1/1/2009	2.0	4.0	1.0	160	540	86

The facility must operate and maintain an engine that achieves the emission standards as required over the entire life of the engine. The facility also has recordkeeping, notification, and reporting requirements under the NSPS.

National Emission Standards for Hazardous Air Pollutants (NESHAP)/Maximum Achievable Control Technology (MACT)

The facility is major for HAPs and is subject to the following MACT standards.

MACT Subpart DDDDD

The natural gas-fired boiler (ID No. ES-BLR1) is subject to the “NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers,” 40 CFR Part 63 Subpart DDDDD. It is an existing boiler under the MACT because it was constructed prior to June 4, 2010. The subcategory for this boiler is “Units Designed to Burn Gas 1 Fuels.” The following is a summary of the requirements for the boiler (i.e., an existing boiler; Gas 1 subcategory; >10 million Btu per hr) under MACT DDDDD.

- Conduct a one-time energy assessment and an initial tune-up as specified in 40 CFR 63.7500(a) and 63.7510(e).
- Conduct a tune-up of the boiler annually as specified in Table 3 of 40 CFR Part 63 Subpart DDDDD.
- Operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
- Maintain records of Initial Notification or Notification of Compliance Status, semiannual compliance report and annual reports.
- Maintain records for five years, with at least two years onsite.
- Submit semiannual compliance report that includes periods of noncompliance if applicable.

MACT Subpart ZZZZ

The natural gas-fired emergency generator (ID No. ES-EG) is subject to the “NESHAP for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63,” MACT Subpart ZZZZ. The engine is considered a new source under the MACT because it will be construction after June 12, 2006. Per 40 CFR 63.590(c)(4), a new spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions complies with MACT Subpart ZZZZ by meeting the requirements for NSPS Subpart JJJJ. No further requirements apply for such engines under MACT Subpart ZZZZ.

Prevention of Significant Deterioration (PSD)/National Ambient Air Quality Standards (NAAQS)

Cabarrus County had been classified as a moderate nonattainment area for the 1997 8-hour ozone standard. All counties in NC were re-designated as attainment effective August 27, 2015. [Ref: Federal Register /Vol. 80, No. 144 /Tuesday, July 28, 2015 /Rules and Regulations.] S&D is minor

for PSD because it has accepted an avoidance condition under 15A NCAC 02D .0902 applicability, to limit VOC emissions to less than 100 tons per year. This permit renewal does not affect the PSD status of the facility. Although Cabarrus County's minor source baseline for PM₁₀ and SO₂ has been triggered; there are no emissions increases or decreases associated with this permit renewal.

112(r)

The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule. This permit renewal does not affect this status.

CAM

40 CFR Part 64 is applicable to any pollutant-specific emission unit, if the following three conditions are met:

- the unit is subject to any (non-exempt: e.g. pre November 15, 1990, Section 111 or Section 112 standard) emission limitation or standard for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.
- the unit's precontrol potential emission rate exceeds either 100 tpy (for criteria pollutants) or 10/25 tpy (for HAPs).

The facility provided an updated emission factor for source the tea leaf mixing and packaging system (ID No. ES-TMP) and the associated bagfilter (ID No. CD-TMP). The updated potential uncontrolled emissions for particulate matter was above 100 tons per year. Therefore, CAM rules apply to source ES-TMP and the associated bagfilter CD-TMP. There are no other emission sources and/or control devices that are subject to CAM.

RACT

Cabarrus County was in moderate nonattainment for the 1997 8-hour ozone standard. S&D has accepted an avoidance condition limiting VOCs to less than 100 tons per year to avoid applicability to RACT. All counties in NC were re-designated as attainment effective August 27, 2015. [Ref: Federal Register /Vol. 80, No. 144 /Tuesday, July 28, 2015 /Rules and Regulations.] The facility must keep the VOC avoidance condition in the permit, because the limitation was used to bring the area back into attainment. This permit renewal does not affect this status.

VII. Facility Wide Air Toxics (State Enforceable Only)

Facility-wide affected sources are subject to the TPER as listed in 15A NCAC 02Q .0711 for phenol and hexane. A permit to emit either of these pollutants in quantities above the TPER rates requires the submittal of a permit application. No changes are needed under this permit renewal.

S&D has also previously conducted air modeling to demonstrate compliance with the AALs for acetic acid, acetaldehyde, acrolein, and formaldehyde, and the previous permit includes the modeled emission limits for these TAPs. The most recent modeling was conducted in 2008 as a result of S&D adding a new coffee roaster, ES-R6. The modeling was reviewed by Tom Anderson of the AQAB. In a memo dated February 14, 2008, Mr. Anderson indicated the modeling demonstrated compliance with the AALs on a source-by-source basis. No changes are needed to the permit limits under this renewal.

VIII. Facility Emissions Review

There is no change in Title V potential emissions for this renewal. Actual emissions from previous years are listed on Page 1.

IX. Compliance Status

DAQ has reviewed the compliance status of this facility. During the most recent inspection conducted on January 15, 2016, Melinda Wolanin of the MRO indicated that the facility appeared to be in compliance with all applicable requirements.

Five year compliance history

A Notice of Deficiency was issued on February 8, 2012 for a late semi-annual report. The deficiency has been resolved, and the facility is in compliance.

X. Public Notice/EPA and Affected State(s) Review

A concurrent public notice period of 30 days and an EPA review period of 45 days are required for the issuance of this renewal of the title V permit. A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to the EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above.

EPA's 45 Day Review period

Ms. Heather Ceron (U.S. EPA, Region IV) was provided a PROPOSED permit for review on February XX, 2016. EPA 45 day review period ended on March XX, 2016. No comments were offered or received.

Public Notice

The 30-day public notice of the proposed permit was posted on the NCDAQ website on February XX, 2016. No comments were offered or received.

XI. Other Regulatory Considerations

- A P.E. seal is NOT required for this application.
- A zoning consistency determination is NOT required for this renewal.
- Since this application was a renewal with no modification, no emission increases were noted for the PSD increment tracking purposes.

XII. Recommendations

The permit renewal application for S&D Coffee, Inc. in Concord, Cabarrus County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 05029T16.